


Water Quality Subcommittee Meeting
February 8, 2005

AGENDA ITEM	DISCUSSION
<p data-bbox="134 1148 428 1325">  Existing EPA Requirements for Comm and NTNC Water Systems and Proposed School Rule Recommendations for WQ Handout 3 </p> <p data-bbox="134 1514 186 1537">Lead</p>	<p data-bbox="464 1148 1369 1356"> Sample Size and Action Level Discussion. The workgroup discussed the issue of difference in sample size (250 ml guidance for schools vs. Lead and Copper Rule 1 liter for water systems) and the differences in action levels (20 ppb guidance for schools vs. 15 ppb for water systems). The workgroup was in general agreement that 20 ppb and 250 ml sample is appropriate. Seattle Public Schools shared that they have been successful in articulating the differences between the two sampling protocols. </p> <p data-bbox="464 1365 1369 1722"> Sampling Frequency Discussion. EPA guidance does not specify how often sampling should occur. The workgroup discussed various options: 3, 5, or 10 year schedule; sample every fixture, at least on a rotating basis; sample a whole school at one time; it may take several tests from a fixture to understand the behavior of the fixture leaching lead; sample on consecutive days; or sample just those fixtures that are primarily used for drinking, cooking purposes, or fixtures that are a reasonable source for children to drink. How to deal with hot water taps (food regulations do not address use of temperature of water for cooking purposes)? Hard to come up with one solution since water quality changes, intermittent water use patterns of schools, etc. A plumbing profile of buildings will help assess a school and from that, a sampling plan can be developed that would help answer how often sampling should occur. </p> <p data-bbox="464 1730 1369 1906"> Reporting/Notification of Results. Various options discussed: send home with child, posting on website, available at school and or administrative building, school newsletter, first day packet, etc. Workgroup was in general agreement that when reporting results they need to be specific to individual drinking fountains and use existing communication methods mentioned to notify student, staff, parents, and community. </p>

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Lead – Continued	Follow-up Requirements. Various remediation responses possible including: take fixture out of service, flushing and signage (need quality control to ensure its working), install automatic flushers (solenoid valve), reverse osmosis coolers (need to be NSF approved, wastes lots of water, may not generate enough water, and what are operation and maintenance cost)? Develop a matrix/flowchart that can be used depending on the results (several schools have done this, could use this model).
ACTION	20 ppb and 250 ml sample seems appropriate. Unclear if testing all fixtures or not with prioritization after initial sampling results. Frequency of sampling variable dependent on outcome of plumbing profile and initial sampling. Use existing communication methods to inform. Follow-up actions to occur at local level.
Copper	Sample Size and Action Level Discussion. EPA standard is 1.3 mg/L; World Health Organization is 2.0 mg/L. If lead sample size is 250 ml, copper should too to cut down complexity. However this would result in a more stringent requirement. Also would need to determine action level for a small sample volume like was done with lead and determine health effects at this level. EPA guidance for schools doesn't address copper. By using smaller sample size, this would give a better idea if problem is with the fixture or piping. Stomach problems occur when over the action level. Copper problems generally a grounding problem and easily fixed. Once plumbing profile was completed and determined that copper was not used, sampling would not be required. More information is needed by the workgroup before decision can be made.
ACTION	Workgroup recommends DOH determine action level and sample size issue. Frequency of sampling variable dependent on outcome of plumbing profile and initial sampling. Use plumbing profile to determine if material is present, if not, no need to sample. Use existing communication methods to inform. Follow-up actions to occur at local level.
Cadmium	Current standard is based on source sample, not distribution and 1 liter so if proposing to use 250 ml sample size, need to determine standard and health effects at this smaller sample size. Cadmium is a concern if dealing with galvanized pipes. EPA guidance document for schools does not address cadmium. Once plumbing profile was completed and determined that galvanized piping was not used, sampling would not be required. Look at worst case scenario (farthest end of distribution system) and take sample there. If result ok, no need to sample further. Have construction specifications call out ASTM to ensure better quality materials. Require certification that ASTM standards have been met.
ACTION	Workgroup recommends DOH determine standard and sample size issue. Frequency of sampling variable dependent on outcome of plumbing profile and initial sampling. Use plumbing profile to determine if material is present, if not, no need to sample. Use existing communication methods to inform. Follow-up actions to occur at local level.
Total Coliform	Concern voiced with false positive total coliform results. Can request laboratory to speciate to determine if bacteria is from the coliform group or different bacteria. Total coliform positive samples are automatically analyzed for fecal and <i>E.coli</i> . Do not recommend routine testing because water utility already has to sample for coliform monthly so presence of coliform in school could suggest internal cross connection control problems. Conducting a building survey more useful than occasional sampling. Annual testing of backflow prevention devices required under current regulations. How to deal with dead end lines when fixtures turned off (concerns with iron eating bacteria, deteriorating lines, and Legionella growth). If high turbidity or iron present, then should sample.
ACTION	The workgroup agreed that routine sampling not required. If water is high in turbidity or iron, sampling recommended. Use existing communication methods to inform. Follow-up actions to occur at local level.

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Legionella	Scale and sediment can harbor bacteria including Legionella. CDC recommends testing only after outbreak in order to determine source. Showers primary concern and water temperatures below 120 degrees. The Association of Higher Education recommends proactive testing of Legionella at hospitals and dormitories.
ACTION	The workgroup agreed that routine sampling not required. If water is high in turbidity or iron, sampling recommended. Use existing communication methods to inform. Follow-up actions to occur at local level.
Iron, Manganese, Color, and Total Dissolved Solids	Current standards based on source sample, not distribution. If water coming into building is ok, then corrosion within the building problem. Do not recommend routine sampling, instead use complaints as indicator on when to sample.
ACTION	The workgroup agreed that routine sampling not required. If seeing staining or colored water then sampling recommended. Use existing communication methods to inform. Follow-up actions to occur at local level.
pH, alkalinity, turbidity and tin	pH and alkalinity is a water purveyor issue not school so drop from list. Tin is not soluble so drop from list. Turbidity. If receiving complaints about turbid water due to iron, manganese, etc., school should sample.
ACTION	The workgroup agreed to drop from the list of concerns pH, alkalinity and tin. Recommend that turbidity be sampled if experiencing colored water due to iron, manganese, etc. Workgroup lead will check into WISHA requirements on complaints associated with aesthetic issues.
HANDOUTS	NEXT MEETING
<ol style="list-style-type: none"> 1. Agenda 2. January 18 Summary Meeting Notes 3. Existing EPA Requirements for Comm and NTNC Water Systems and Proposed School Rule Recommendations for WQ 	<p>Tuesday, March 1, 2005 9:00 am to 3:00 pm</p> <p>Lake Washington School District L.E. Scarr Resource Center 16250 NE 74th Street Redmond WA 98052 Phone: (425) 702-3200 Fax: (425) 702-3213</p>